

IN THE CLAIMS:

Please cancel claims 1-36 without prejudice or disclaimer.

Please add new claims 37-56 as follows:

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37. (New) An imaging apparatus having a function for irradiating an electromagnetic wave to a subject by an irradiating unit that starts an accumulation of an energy for irradiation after it has received a permission signal which permits the irradiation and sensing the electromagnetic wave reflected by the subject by an image sensing unit, comprising:

a controller that generates a signal so as to overlap a first period and a second period,

A1 wherein the first period is an interval between a timing when a first signal, which permits said irradiating unit to irradiate the electromagnetic wave, is outputted from said controller and a timing when the electromagnetic wave is outputted from said irradiating unit, and

wherein the second period is an interval between a timing when a second signal, which initializes said image sensing unit, is outputted from said controller and a timing when an initialization of said image sensing unit has been completed.

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38. (New) The apparatus according to claim 37, wherein said controller controls so that one signal of the first signal and the second signal starts after the other signal has started and before it has stopped.

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39. (New) The apparatus according to claim 37, wherein said image sensing unit has a photo-electric conversion device which outputs a signal in accordance with the

electromagnetic wave and the second period is an interval between a timing when a second signal, which initializes said photo-electric conversion device, is outputted from said controller and a timing when an initialization of said photo-electric conversion device has been completed.

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40. (New) The apparatus according to claim ³~~39~~, wherein the second period is an interval for a pre-readout of said photo-electric conversion device.

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41. (New) The apparatus according to claim ¹~~37~~, wherein said image sensing unit has a grid which absorbs scattered rays from the subject and the second period is an interval between a timing when a second signal, which initializes said photo-electric conversion device and said grid, is outputted from said controller and a timing when an initialization of said photo-electric conversion device and said grid has been completed.

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42. (New) The apparatus according to claim ⁵~~41~~, wherein the second period is an interval between a timing when the second signal has outputted and a timing when said grid has arrived at an irradiation center with a predetermined speed.

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43. (New) The apparatus according to claim ¹~~37~~, wherein said image sensing unit has a photo-electric conversion device which outputs a signal in accordance with the electromagnetic wave and a grid which absorbs scattered rays from the subject, and the second period is an interval between a timing when a second signal, which initializes said photo-electric conversion device and said grid, is outputted from said controller and a timing when an initialization of said photo-electric conversion device and said grid has been completed.

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~~44.~~ (New) The apparatus according to claim ¹~~37~~, wherein said controller generates the first signal so that an irradiation of the electromagnetic wave starts at a timing when a third period is elapsed after said controller has received a third signal which instructs a start of photographing, and the third period is the longer one of the first period and the second period.

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~~45.~~ (New) The apparatus according to claim ¹~~37~~, wherein said image sensing unit has a photo-electric conversion device which outputs a signal in accordance with the electromagnetic wave and a grid which absorbs scattered rays from the subject, and wherein said controller generates the first signal so that an irradiation of the electromagnetic wave starts at timing when a third period is elapsed after said controller has received a third signal which instructs a start of photographing, and the third period is the longer one of the first period and the second period.

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~~46.~~ (New) An imaging system in which a plurality of devices are communicably connected, wherein at least one of the plurality of devices has a function of an imaging apparatus comprising:

an irradiating unit that irradiates an electromagnetic wave to a subject and starts an accumulation of an energy for irradiation after it has received a permission signal which permits the irradiation;

an image sensing unit that senses the electromagnetic wave reflected by the subject; and

a controller that generates a signal so as to overlap a first period and a second period,

wherein the first period is an interval between a timing when a first signal, which permits said irradiating unit to irradiate the electromagnetic wave, is outputted from said controller and a timing when the electromagnetic wave is outputted from said irradiating unit, and

wherein the second period is an interval between a timing when a second signal, which initializes said image sensing unit, is outputted from said controller and a timing when an initialization of said image sensing unit has been completed.

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(New) A control method of an imaging apparatus having a function for irradiating an electromagnetic wave to a subject by an irradiating unit that starts an accumulation of an energy for irradiation after it has received a permission signal which permits the irradiation and sensing the electromagnetic wave reflected by the subject by an image sensing unit, comprising the step of:

controlling a controller to generate a signal so as to overlap a first period and a second period,

wherein the first period is an interval between a timing when a first signal, which permits said irradiating unit to irradiate the electromagnetic wave, is outputted from said controller and a timing when the electromagnetic wave is outputted from said irradiating unit, and

wherein the second period is an interval between a timing when a second signal, which initializes said image sensing unit, is outputted from said controller and a timing when an initialization of said image sensing unit has been completed.

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~~48.~~

(New) The method according to claim ¹¹~~47~~, wherein in said controlling step, one signal of the first signal and the second signal is started after the other signal has started and before it has stopped.

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~~49.~~

(New) The method according to claim ¹¹~~47~~, wherein said image sensing unit has a photo-electric conversion device which outputs a signal in accordance with the electromagnetic wave and the second period is an interval between a timing when a second signal, which initializes said photo-electric conversion device, is outputted from said controller and a timing when an initialization of said photo-electric conversion device has been completed.

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(New) The method according to claim ¹³~~49~~, wherein the second period is an interval for a pre-readout of said photo-electric conversion device.

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~~51.~~

(New) The method according to claim ¹¹~~47~~, wherein said image sensing unit has a grid which absorbs scattered rays from the subject and the second period is an interval between a timing when a second signal, which initializes said photo-electric conversion device and said grid, is outputted from said controller and a timing when an initialization of said photo-electric conversion device and said grid has been completed.

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~~52.~~ (New) The method according to claim ¹⁵~~51~~, wherein the second period is an interval between a timing when the second signal has been outputted and a timing when said grid has arrived at an irradiation center with a predetermined speed.

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~~53.~~ (New) The method according to claim ¹¹~~47~~, wherein said image sensing unit has a photo-electric conversion device which outputs a signal in accordance with the electromagnetic wave and a grid which absorbs scattered rays from the subject, and the second period is an interval between a timing when a second signal, which initializes said photo-electric conversion device and said grid, is outputted from said controller and a timing when an initialization of said photo-electric conversion device and said grid has been completed.

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~~54.~~ (New) The method according to claim ¹¹~~47~~, wherein in said controlling step, the first signal is generated so that an irradiation of the electromagnetic wave starts at a timing when a third period is elapsed after said controller has received a third signal which instructs a start of photographing, and the third period is the longer one of the first period and the second period.

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~~55.~~ (New) The method according to claim ¹¹~~47~~, wherein said image sensing unit has a photo-electric conversion device which outputs a signal in accordance with the electromagnetic wave and a grid which absorbs scattered rays from the subject, and wherein said controller generates that first signal so that an irradiation of the electromagnetic wave starts at a timing when a third period is elapsed after said controller has received a third signal which

instructs a start of photographing, and the third period is the longer one of the first period and the second period.

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56. (New) A computer-readable storage medium wherein said storage

medium stores a processing program for executing an image control method, wherein

said method is a control method of an imaging apparatus having a function for irradiating an electromagnetic wave to a subject by an irradiating unit that starts an accumulation of an energy for irradiation after it has received a permission signal which permits the irradiation and sensing the electromagnetic wave reflected by the subject by an image sensing unit, comprising the step of:

controlling a controller to generate a signal so as to overlap a first period and a second period,

wherein the first period is an interval between a timing when a first signal, which permits said irradiating unit to irradiate the electromagnetic wave, is outputted from said controller and a timing when the electromagnetic wave is outputted from said irradiating unit, and

wherein the second period is an interval between a timing when a second signal, which initializes said image sensing unit, is outputted from said controller and a timing when an initialization of said image sensing unit has been completed.